Percutaneous transluminal angioplasty associated with a comparable risk of mortality in old patients with severe lower extremities arterial disease

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Background: Percutaneous transluminal angioplasty (PTA) improves limb salvage rates in patients with severe lower extremity arterial disease (LEAD). It remains unknown whether PTA can be safely performed to the older LEAD patients.

Purpose: We investigated the effect of age ≥85 vs <85 years on prognoses in LEAD patients.

Methods: We analyzed 222 LEAD patients from our previous retrospective cohort study between 2013 and 2018. All patients received percutaneous transluminal angioplasty. Study outcomes were in-hospital mortality and 1-year all-cause mortality and major adverse limb events (MALEs).

Results: The study included 222 patients aged 74±11 years (54% male), and 12.6% had acute limb ischemia. The older group had significantly higher rates of in-hospital (17.8 vs. 5.1%, P=0.009) and all-cause mortality (37.8% vs. 19.2%, P=0.016), but MALEs were not different significantly (8.9% vs. 16.9%, P=0.247). In multivariate logistic regression analyses, age ≥85 years was not associated with the increased risks of the study outcomes after we adjusted for potential confounders. The risk factors associated with 1-year all-cause mortality was the presence of acute limb ischemia (adjusted HR: 2.978, 95% CI: 1.502–5.905, P=0.002) and Rutherford stages (adjusted HR: 2.135, 95% CI: 1.248–3.652, P=0.005).

Conclusion: Compared with the patients aged less than 85 years, the LEAD patients aged more than 85 years had favorable risks of mortality after receiving PTA, and the incident MALEs were not significantly different.